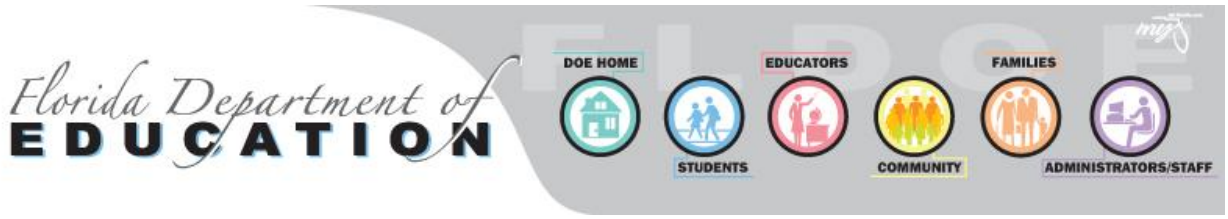


Return on Investment (ROI) Index

Florida's educators and policymakers are frequently asked to explain how funds appropriated for education are spent and how effectively these funds have been used to generate school and student performance. Because funding for education is an investment in Florida's future, the shareholders (Florida's citizens) have an interest in the return provided by this investment.

Evaluating schools' educational return on investment (ROI) can help answer key questions about the direction of education in Florida, including the following:

- How can we measure the success of our efforts?
- How do we know whether we're accomplishing what we set out to do?
- How can we make informed decisions about the ongoing use of our resources?

To assist in answering these questions, the Florida Department of Education has developed the ROI website, which includes an ROI index calculation for schools. The ROI index provides an indicator of a school's cost-effectiveness by combining two key measures of the delivery of educational programs: costs and learning gains.

In very general terms, the ROI index is determined by dividing the percentage of students with learning gains by the program costs per weighted full-time equivalent student at the school. Higher learning gains result in a higher ROI index if costs are the same. Higher costs produce a lower ROI index if learning gains are the same. Schools with high learning gains and low costs will have the highest ROI indexes. Schools with low learning gains and high costs will have the lowest ROI indexes. For more information about the formula for ROI, see the ROI Technical Descriptions section of this document.

To interpret a school's ROI index, it is helpful to understand how the ROI results of other schools in the state compare-in effect, to determine

where the school is in relation to other schools. The ROI website offers two strategies to assist with these interpretations. One is a *percentile rank* (from 1 to 100, with 1=lowest and 100=highest) and the other is a measure of the *percent of highest value*. For additional information on the percentile rank and the percent of highest value, refer to the ROI Technical Descriptions section below.

The return on investment for schools can be best understood by using the percentile rank and the percent of highest value. The actual ROI index value is available only by drilling down into the data on the ROI page, and it is likely to change from year to year as costs and school programs change. The percentile rank and the percent of highest value, however, can be interpreted with the same meaning across years.

In order to understand the ROI information completely, one should consider many other factors that affect a school's cost effectiveness. These factors also can be found via the ROI website. For example, schools with similar student populations and faculties with similar education and experience could be compared using the percentile rank or the percent of highest value. A review of the ROI information about a school should also consider the other information available on the website about that school in order to reach the best understanding possible about its cost effectiveness.

ROI Technical Descriptions

This section addresses the following topics in the order listed:

- ROI School Types
- ROI Index Formula
- ROI Learning Gains Formula
- ROI Costs Formula
- ROI Percentile Rank
- ROI Percent of Highest Value

ROI School Types

School types and the percent tested weighting factors are shown in the table below.

School Type	Percent Tested Weighting Factors
(01) Elementary	Use actual percent tested if >= 95% Use 94% if actual percent tested is < 95%
(02) Middle/Junior High School	Use actual percent tested if >= 94% Use 93% if actual percent tested is < 93%
(03) High School	Use actual percent tested if >= 84% Use 83% if actual percent tested is < 84%
(21) ESE	Not applicable
(22) DJJ/Alternative	Not applicable
(99) Include the school in the ROI system for other available information but do not calculate an ROI.	

In addition to schools classified as (99), schools (of any type) for which the number of students tested in either math or reading was less than 30 had no value of ROI calculated.

ROI Index Formula

The technical formula for a school's ROI index is as follows:

$$\frac{((READING\%ofStudentsWithLGns + MATH\%ofStudentsWithLGns) x \%Tested)}{(TotalProgramCostPerWeightedFTEStudent / DistrictCostDifferential)} \times 100$$

ROI Learning Gains Formula (Numerator)

Learning gains for the ROI calculation are the improvements students make from one year to the next in reading and in mathematics on the Florida Comprehensive Assessment Test (FCAT). These improvements, i.e., learning gains, are measured using the FCAT Developmental Scale Score or growth scale. Unlike the School Grading process, the learning gains for the ROI index include all students with FCAT scores, not just the standard curriculum students. Further, the learning gains factor is the

sum of both the percent of students with learning gains in reading and the percent of students with learning gains in mathematics. For example, 75 + 40 = 115, where 75 is the percent with learning gains in reading and 40 is the percent with learning gains in mathematics. An ROI index is not available for schools where the number of students for whom learning gains could be determined in either reading or mathematics was less than 30. The measure of costs used in the development of the ROI is the Total Program Costs Per WFTE / DCD. Total program costs represent the total federal, state, and local direct classroom and indirect school costs spent at a school. The weighted FTE (WFTE) is the sum of all students' FTE weighted by their individual program costs. The district cost differential is the relative cost of providing instruction in a district when compared to other districts in the state.

An adjustment is made to the total learning gains using the percent of students who were tested. For example, 115 x 95% = 109.25, where 95% is the percent of the students tested. Because some school populations include a large number of students who are not eligible for testing on the FCAT, a lower limit was established for this adjustment. The lower limit was set at the level corresponding to the 25th percentile; that is, the point above which 75 percent of the schools are found in terms of percent tested values. Application of the percent tested was not appropriate for the ESE and DJJ school types. The adjustment values for percent tested are shown in the table above. The percent tested adjustment was made as follows:

$$ROILearningGains = (RLGns + MLGns)x\%Tested$$

ROI Costs Formula (Denominator)

The ROI index was developed using total program costs per weighted full-time equivalent (WFTE) student in order to recognize the additional funding provided for students with special needs. The school WFTE then is the average of all students' full time equivalent status weighted by the individual program costs. The program costs included were the total federal, state, and local direct classroom and indirect operating expenditures at a school. However, the basic program cost factors for programs 111, 112, and 113 do not recognize the additional funding provided to these ESE students through the ESE Guaranteed Allocation. In order to eliminate the effects of this additional funding, ROI adjustment factors were calculated by increasing the basic cost factor for each program using the ratio of ESE Guaranteed Allocation to base funding.

One final adjustment was made to the WFTE prior to determining the final cost factor included in the ROI index. The WFTE was adjusted by the district cost differential (DCD). The DCD is the relative cost of

providing instruction in a district when compared to other districts in the state. The DCD adjustment was made as follows:

$$ROICosts = \frac{CostsPerWFTE}{DCD}$$

ROI Percentile Rank

The percentile rank is generated using the ROI index to rank all schools of similar types (elementary, middle, high, ESE, and DJJ). The ROI values of schools of the same type are first ranked from low (rank of 1) to high. For example, if the group has 1300 schools, the lowest ROI value would have a rank of one (1) and the highest ROI value would have a rank of 1300. To convert these simple ranks into percentile ranks, each rank is divided by the total number of schools ranked. For example, the school with the 50th lowest value would have a percentile rank of 4 (50/1300), the school with the 650th lowest value would have a rank of 50 (650/1300), and the school with the 1250th lowest value would have a percentile rank of 96 (1250/1300).

The result can be interpreted as the percentage of schools with a lower return on investment index. This ranking can be used to compare a school's relative position to other schools of the same type and to evaluate the school's cost effectiveness, compared to other schools over time.

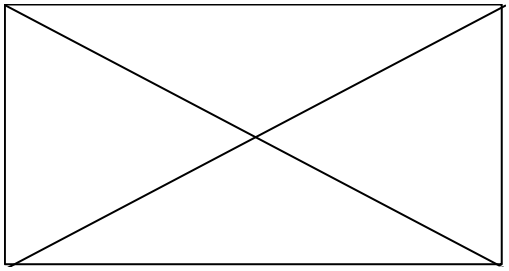
ROI Percent of Highest Value

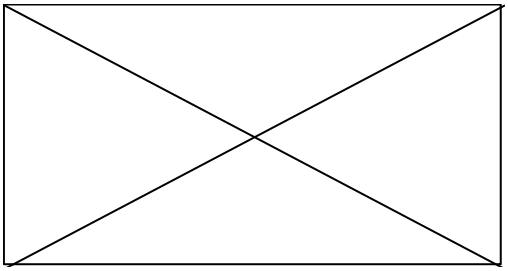
Another interpretation of the ROI index can be made by using a simple percent method. The percent of highest value is generated by dividing the ROI index for a school by the highest ROI index for a similar type school (elementary, middle, high, ESE, and DJJ). The result shows how close a school is to matching the performance of the top school of its type. A school with a percent of highest value score of 50% has a ROI index value that is equal to one-half of the highest ROI index. A school with a value of 90% has a ROI index value that is equal to nine-tenths of the highest ROI index. This value can be used to gauge how close a school is to the top-level performance of schools of the same type and to evaluate the school's comparison to other schools over time.

Example

Return on Investment
2009-2010

The Return on Investment (ROI) index relates financial resources expended at the school-level with measures of student performance at that school. The percentile ranking generated from the ROI index allows users to evaluate the efficiency and effectiveness of the school as compared to all other schools.





ALACHUA COUNTY
A. L. MEBANE MIDDLE SCHOOL

	School
Return on Investment - Percentile Rank	29
Return on Investment - Percent of The Highest ROI Value	62%
Percent of Students with Learning Gains	
Mathematics	63%
Reading	60%
School Grade	N/A
Total Program Cost per WFTE	$6,289

Student/Staff Indicators

School Demographics
School Staff
School Student Performance
School Students in Special Programs/School Discipline
District Community Information

Financial Indicators

School Return on Investment Index
School Total Program Costs Per Student
District Revenues
District Expenditures
District Financial Margins and Reserves
District Taxes
District Debt

Links to Other Education Sites